

REMARKS

Reconsideration and allowance are respectfully requested.

In the Office action, the pending claims were all rejected as fully met by the disclosure in the Biagini patent No. 4,312,191. Applicant respectfully disagrees with the Examiner's determination of the relevance of this patent for the following reasons.

Biagini discloses an aircraft environmental control system in which air exhausted from the aircraft cabin 18 is directed along a flow path 19 and into the inlet 21 of a power compressor 22 (column 4 lines 47 – 50). The compressor 22 compresses the cabin air before directing it to the inlet 31 of a bootstrap compressor from which the air is passed to an expansion cooling turbine designated by arrow 32. Thus, the compressor 22 performs work on the exhausted cabin air as part of the process of conditioning the air prior to its return to the cabin.

In contrast to Biagini, the present invention discloses and claims that air exhausted from the cabin 18 passes through an expansion turbine 26 causing it to rotate and thereby contribute drive power to the electric motor 16. From cabin 18, two outlets are provided, one to dump the air and the second is provided to allow the exhausted air to flow directly to the expansion turbine 26 which is connected directly to the electric motor 16. This extra energy is then used to supplement the output of the electric motor 16 driving the cabin air compressor

22.

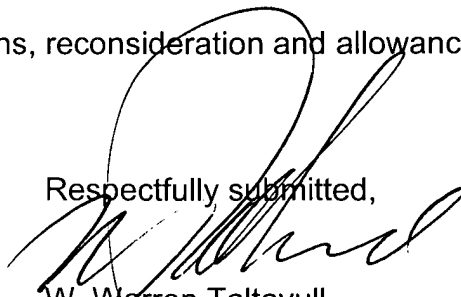
Biaginil involves the use of a compressor to put energy into air exhausted from the aircraft cabin whereas the present invention is doing the opposite by using a turbine to extract energy from the exhausted air. The present invention utilizes the energy extracted from the exhausted cabin air to contribute drive power to motor 16, thus reducing the working load on the core gas generator 10 (page 3 lines 20 – 29), ensuring that the air within the cabin is maintained at an appropriate pressure.

Neither Biagini nor any other cited reference provides any indication of having two outlets for the exhausted cabin air to pass selectively to outside or to an expansion turbine (26 in Figs. 1 and 2) and none suggest or disclose the efficient use of the cabin's exhausted air to assist in driving the electric motor 16 for an environmental control system.

Entry of this amendment is solicited and is believed appropriate since the argument above is believed to distinguish the invention from each of the cited references.

For the foregoing reasons, reconsideration and allowance are believed in order and are solicited.

Respectfully submitted,



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